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(54) Title: METHOD FOR PREPARATION OF SITE-SPECIFIC PROTEIN CONJUGATES

(57) Abstract: The invention is directed to a single-step method for rapidly and efficiently preparing protein-polymer conjugates, including an insulin-polymer conjugate. According to the method of the present invention, a protein and hydrophilic polymer are contacted in the presence of at least one organic solvent and at least one metal chelator, under conditions that promote the formation of a conjugate of the protein and polymer. Thus, the invention is directed to the site-specific modification of selected proteins, such as insulin, with poly(ethylene glycol) at residue PheB 1. The invention also provides a pharmaceutical formulation for encapsulating the conjugate in a biodegradable polymer.

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